



Committee Report

To: Warden Janice Jackson
Members of the Planning and Development Committee

From: Jill Roote
Manager of Economic Development

Date: December 17, 2020

Re: Bruce Innovates - Feasibility Study and Business Plan Progress Update

Staff Recommendation:

The Bruce Innovates - Feasibility Study and Business Plan Progress Update report is for information.

Background:

Through the Project Innovate Strategy (adopted July 2018), Bruce County enacted an ambitious goal to become an “Innovative Energy Supercluster”. The Vision from this work is “to build a diverse collaborative network that advances the region as a global leader and national centre in energy production, research and next generation technologies”.

With its numerous game-changing power-to-fuel applications, it is acknowledged that Hydrogen is that next generation opportunity. Hydrogen continues to gain traction locally, with the recent announcements out of the Nuclear Innovation Institute and local projects; provincially, with the announcement of Ontario’s Low-Carbon Hydrogen Strategy Discussion Paper; nationally, with continued focus on this sector towards advancement; and globally, with the recent announcement at the World Economic Forum – hydrogen as one of the top 10 emerging technologies for the future.

Advancing foundational hydrogen infrastructure makes sense for Bruce County with its strong connection to the existing climate change reduction energy framework. These steps continue to cultivate the process to form a Bruce County Centre of Energy Excellence - and Energy Supercluster. Hydrogen will play a key role in leading the transition away from fossil fuels. In combination with nuclear and the vast geologic make-up across the region make this an ideal location for this cultivation. Both the Hydrogen Business Council and the Canadian Nuclear Laboratory continue to reiterate this around numbers energy think tank tables.

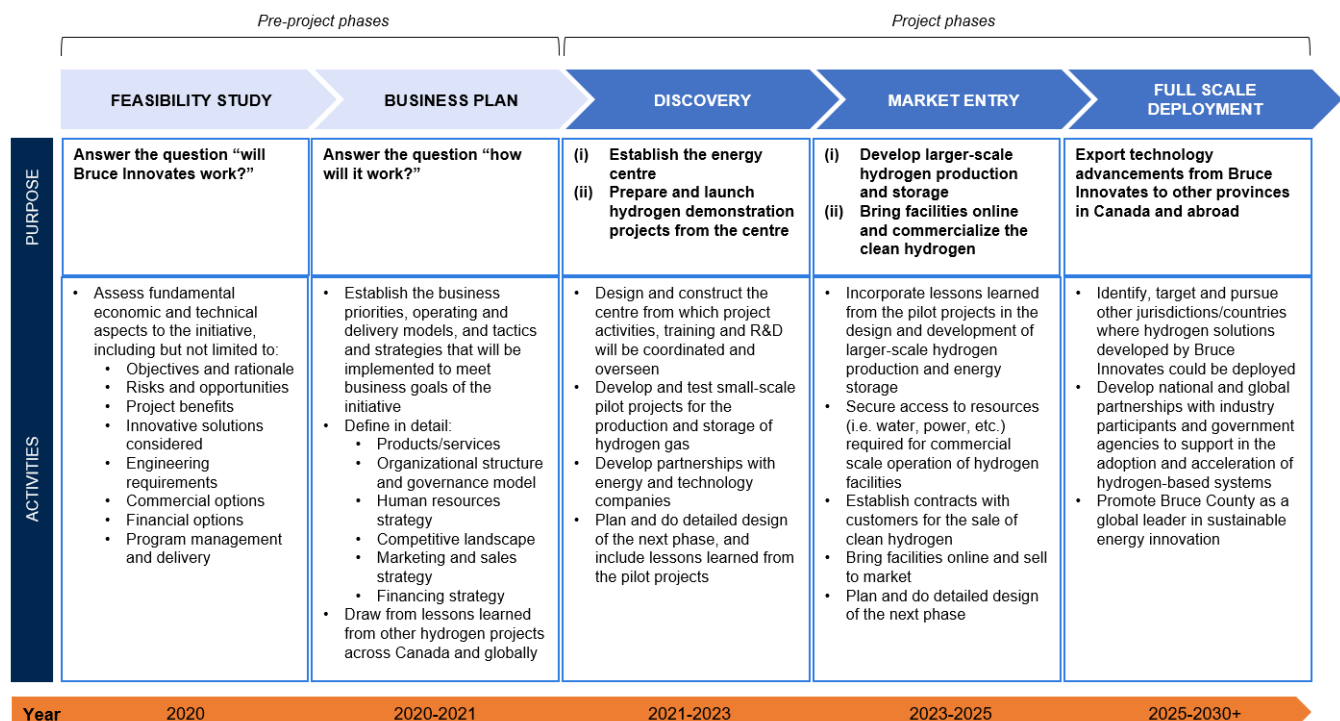
It is a unique advantage for the Bruce Region to provide solutions to use off-peak nuclear and renewable electricity with the strong connection to energy storage capabilities to impact the local, provincial, and national economies favorably - advancing the next industrial revolution, the clean tech evolution.

The outcomes of this work have the potential to impact many industries across the Bruce Region, the Province, and the Country. These are not limited to but can include transportation, heating, agriculture, and industry.

Bruce Innovates - Foundational Work Progress:

To help establish the foundation on which to move the project forward in a methodical and sequential way, it is necessary to undertake a feasibility study and business plan. The feasibility study will assess the project's plans to advance foundational hydrogen infrastructure answering the question "will it work" and the business plan will form the framework to build the industry, answering the question "how will it work". As such, this initiative does require foundational documents that clearly illustrate the realistic benefits to the region and clearly articulates a best practices approach to project development. A foundational document includes an executional plan that builds support, develops a compelling business case, and outlines how to fully realize the economic development opportunities within the over-arching framework to advance Bruce County as the Clean Energy Capital of Canada.

The action plan for the development and execution of Bruce Innovates begins with two pre-project phases followed by three project phases, combining for a total duration of 10+ years. This is detailed in the chart below taken from page 18 of the Bruce Innovates: Foundational Hydrogen Infrastructure Project overview (attached).



As noted above in the “pre-project phases”, these important documents can now advance due to the successful grant application to the Federation of Canadian Municipalities’ Green Municipal Fund.

A Request for Proposal (RFP) seeking a qualified consultant in the hydrogen space was opened on Monday, April 27th and closed on Wednesday, May 20, 2020. There were 7 total submissions. Each submission was evaluated by members of the Bruce Innovates Steering Committee based on a weighted set of criteria. The successful submission, based on the highest-ranking proposal once all individual evaluations were averaged and tabulated, was Hatch, LTD.

Note: this work advances the large-scale deployment and is not related specifically to any smaller scale pilots as referenced in the Discovery Phase above.

During the last couple of months, staff have been working alongside Hatch to move this important work forward in a timeframe necessary to be prepared for the potential green energy stimulus funding expected to be announced by the Federal government as a way to advance the economy post pandemic.

Hatch has divided this work into five work packages:

1. Project Initiation and Evaluation Framework for Design;
2. Design Basis and Development;
3. Market Demand and Financial Investment;
4. Impact Assessment; and
5. Reporting.

The Bruce Innovates Update (attached) and presentation details the progress under these work packages for Committee’s information.

Financial/Staffing/Legal/IT Considerations:

Staff received confirmation on March 27th, from FCM approving the budget request and funding support for \$148,750. This was leveraged through the County’s \$125,000 contribution redirected from the Federal Gas Tax reserve approved on May 2, 2019 during the Corporate Services Committee meeting.

Interdepartmental Consultation:

There was no interdepartmental consultation.

Link to Strategic Goals and Elements:

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| Goal #6 | Explore alternate options to improve efficiency, service:
C. Look for economy of scale or shared services among our departments and our communities |
| Goal #7 | Stimulate and reward innovation and economic development |

Report Author:

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Manager, Economic Development, Planning and Development

Departmental Approval:**Approved for Submission:**

Sandra Datars Bere
Chief Administrative Officer